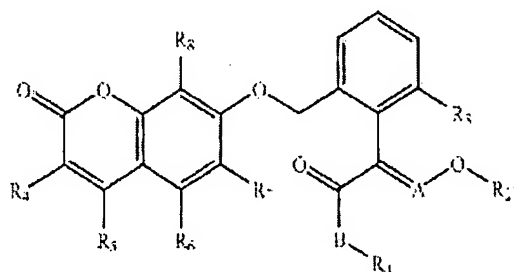


## AFFIDAVIT

- 345# Lingling Rd., Xuhui District, Shanghai, P. R. China.
- I have personal knowledge of all matters set forth in this Affidavit.
- I am Professor Long Lu at Shanghai Institute of Organic Chemistry. I have been employed at Shanghai Institute of Organic Chemistry since 1991, meanwhile as a visit scholar at DuPont and the University of Iowa.
- I am readily familiar with Agrochemical technology and R&D thereof for Shanghai Institute of Organic Chemistry.
- Shanghai Institute of Organic Chemistry has been in the Agrochemical research work for over 10 years.

After reading current claims of the present invention (US patent application number: 10/573,529) and three cited documents ( D1: Hayase *et al* JP04 182461 A ; D2: O'Mahony *et al* US6,034,121; D3: Fischer *et al* US6,906,007), my statement is as follow.

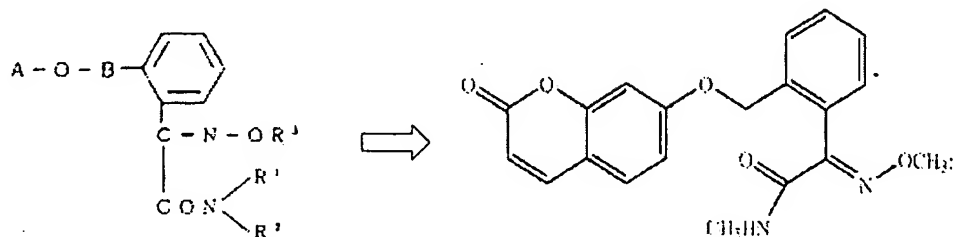
Contents of the present invention I have learnt relates to chemical structures comprising both Coumarin moiety and part of Strobilurin with insecticidal and fungicidal activities. And I also note that the claims have been limited by inventors based on the original copy as filed by deleting the some substitutes such as  $R_5$  and  $B$  selected only from O or S forming the current claims with narrow scope (see the formula below).



I believe that the current amendment, in the invention, meet requirement of patentability because of non-obviousness. The reasons are as follows:

First, the compounds of the invention with current claims have much better activities than that of D1, and compounds in D1 (see thereafter) have 0 to 100% control against fungi at 500ppm. Wherein, compound 51 disclosed Coumarin moiety without any activity data to be supported. A person having ordinary skill in the art can not make sure whether compound with Coumarin moiety and part of Strobilurin has activity or not from D1, As you know, one can make activity compound, but not good activity compound easily. However, differing from compound 51, the

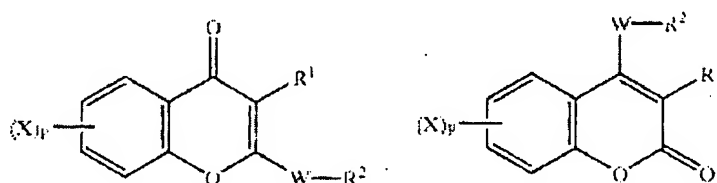
compounds provided by the current claims in the invention have exceptional better fungicidal activities (see comparison table below). In the case, I think the present invention has inventive step.



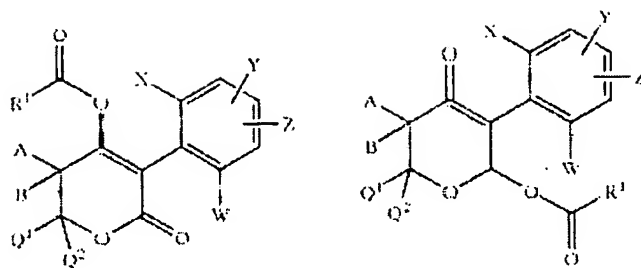
**Comparison of fungicidal activity against cucumber downy mildew (50 ppm)**

Compound	1	2	5	6	12	26	37	52	402	405	409	414	JP51
control(%)	100	100	100	100	100	100	100	100	100	100	100	100	20

D2 disclosed many compounds containing Coumarin moiety with fungicidal activity, BUT structures in the main are two, see two formulas below, which are different from that of the current claims of the invention. As you know, different structures normally have different activities. In fact, the activity level of compounds in comparative with D2 is only ranged level 2 (level 1 is little control or no control, level 2 is moderate control and level 3 is ranked from good to total percentage control ) at 500ppm. Well, compounds of the current claims of the invention are at 100% control even at 50ppm. So I do believe that a person having ordinary skill in the art could not make a compound with better activities from information disclosed by D2 only and the present invention has prominent substantive features and a notable progress as shown in the comparison table.



As for D3, the two structures (see below) in the main being without Coumarin moiety are totally different from that of the current claims of the invention. I do believe that an ordinary person in this field could not work out the compound with Coumarin moiety and part of Strobilurin, for instance, in the invention having insecticidal and fungicidal activities, from information given by D3 in combination of D1-D2.



I, myself, have been involved in agrochemical research works and development activities for years at Shanghai Institute of Organic Chemistry and, as one of the inventors, filed patent applications for more than 10 cases such as **US2006276340**. From my research experiment, I have been realized that hard works are needed for R&D. The ordinary person in the field could not imagine the structure of compounds of the invention with the better activities by referring three documents of D1-D3. In other words, three documents of D1-D3 do not imply any ideas of the structured compounds related to the present invention. Lots of practical research work including biological screening must be done during experiment. Therefore, the subject matter in the invention, with the current claims, meets inventive step requirement since non-obviousness from combination three cited documents together and its prominent substantive features and a notable progress represented.

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- 2008.11.24

  
 [signature of affiant]